

# OPTIMIZED PACKET AND TIME DIVISION MULTIPLEX TRANSMISSION AND NET- WORK INTEGRATION

## Abstract

A bandwidth transfer switching system constructed of access concentrators, remote concentrators, relay nodes and at least one transfer switch. The access concentrators accept signals from various customer communications devices using switched signals and packet signals, including local area networks. The remote concentrators are optional, to group signals from multiple access concentrators. The relay nodes are also optional, to provided to increase signal distance. The transfer switch or switches receive the signals and route them onward to other customer devices located elsewhere. The transfer switches are located in a telco central office, or may be part of a private network constructed of access concentrators, remote concentrators, relay nodes and at least one transfer switch, or may be in a combination wherein a private network connects to a telco local loop.